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| APPLICATION NO.             | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------|-----------------|----------------------|---------------------|------------------|
| 09/750,162                  | 12/29/2000      | Keuk-Sang Kwon       | 3430-0164P          | 6546             |
| 2292                        | 7590 12/07/2004 |                      | EXAMINER            |                  |
| BIRCH STEV<br>PO BOX 747    | WART KOLASCH &  | LESPERANCE, JEAN E   |                     |                  |
| FALLS CHURCH, VA 22040-0747 |                 |                      | ART UNIT            | PAPER NUMBER     |
|                             |                 |                      | 2674                |                  |

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | Application No.   | Applicant(s)   |  |  |  |
|--|---|--|--|--|--|
|  | 09/750,162  | KWON ET AL.  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit   |  |  |  |
|  | Jean E Lesperance   | 2674   |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply   |   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |  |  |  |  |
| Status   |   |  |  |  |  |
| <ul> <li>1) ⊠ Responsive to communication(s) filed on 12 October 2004.</li> <li>2a) ⊠ This action is FINAL. 2b) ☐ This action is non-final.</li> <li>3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.</li> </ul>   |   |  |  |  |  |
| Disposition of Claims  |   |  |  |  |  |
| 4)  Claim(s) 1-5 and 7-15 is/are pending in the approach 4a) Of the above claim(s) is/are withdraw 5)  Claim(s) 12 and 13 is/are allowed. 6)  Claim(s) 1-5,7-11,14 and 15 is/are rejected. 7)  Claim(s) is/are objected to. 8)  Claim(s) are subject to restriction and/or   | vn from consideration.  |  |  |  |  |
| Application Papers   |   |  |  |  |  |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on 12-29-2000 is/are: a) Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction The oath or declaration is objected to by the Ex  | accepted or b) objected drawing(s) be held in abeyance on is required if the drawing(s) | . See 37 CFR 1.85(a). is objected to. See 37 CFR 1.121(d). |  |  |  |
| Priority under 35 U.S.C. § 119   | •   |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |   |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date  5) Notice of Informal Patent Application (PTO-152) Paper No(s)/Mail Date  |   |  |  |  |  |

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#### **DETAILED ACTION**

1. The rejection of claims 1-5, 7-11, 14 and 15 is maintained as in the previous Office Action. The applicant needs to amend independent claims 1 and 5 to be more specific like the wherein clause of claims 12 and 13 in order to overcome the rejection.

## Allowable Subject Matter

2. Claims 12 and 13 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the claimed invention is directed to a squad type liquid crystal display device. Independent claims 12 and 13 identify a uniquely distinct feature "wherein a first group of four sub-pixels for a first pixel have one of positive and negative polarity, and a next group of four sub-pixels for a next pixel have the other of positive and negative polarity, and remaining groups of four sub-pixels for remaining pixels alternate between positive and negative polarity".

## Response to arguments

3. Applicant's arguments filed 5-4-2004 have been fully considered but they are not persuasive. Applicant argued that "the definition of the floating channels does not merely spread out the floating channels along the entirety of the m channel available". Examiner disagrees with the applicant view because it is obvious that the channels could be included in the spread out taught by Oh et al. in a specific order. Applicant

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argued that the rational is insufficient to modify the AAPA to arrive at the claimed invention. Contrary to applicant's arguments, one skilled in the art would be very motivated in combining the Oh et al reference with the AAPA to reasonably arrive at the claimed invention. Furthermore, applicant argues that he examiner has not provided any suggestion in the art to "spread out" the channels as stated. The examiner recognizes that obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See in re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and in re Jones, 958 F.2d 347, 21 USPQ2d 1941 (fed. Cir. 1992).

#### Conclusion

4. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jean Lesperance whose telephone number is 703-308-

6413. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30

PM or via email: jean.lesperance@uspto.gov.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Richard Hierpe can be reached at 703-305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Technology Center 2600 Customer Service Office whose telephone

number is (703) 306-0377.

Jean Lesperance

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Date 11-30-2004

HENRY N.TRAN

Hlory N. Jon